

REMARKS

Claims 1-2 and 10-35 are pending. Claims 1, 2, 10, 12-14 and 32-35 were amended as discussed below.

No new matter was added. The new phrase “border region” is fully supported by at least Figs. 2A and 3A, both of which show a border region that includes one or more color bars pre-printed thereon. The phrase “border¹ region” is used herein in accordance with its ordinary meaning to one skilled in the art.

Request for Interview Prior to Formal Action on Amendment

Applicant requests an interview prior to formal action on this response. An “Applicant Initiated Interview Request Form” accompanies this response. Please contact Applicant’s undersigned representative to schedule the interview.

Prior Art Rejection

Claims 1, 2, 10, 12-14 and 32-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chalmers et al. in view of Schramm et al. (hereafter, “Chalmers” and “Schramm” respectively).

Claims 11 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chalmers in view of Schramm and Komori et al. (hereafter, “Komori”).

Claims 16, 18-20, 22-24, 26-28 and 30-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Komori in view of Schramm.

Claims 17, 21, 25 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Komori in view of Schramm and Chalmers.

Applicant respectfully traverses each of these rejections.

¹ the part or edge of a surface or area that forms its outer boundary. *Dictionary.com Unabridged*. Random House, Inc. <http://dictionary.reference.com/browse/border> (accessed: December 02, 2010).

1. Schramm

Schramm is a newly cited and applied reference. The Examiner refers to Schramm as disclosing the following claimed features that are absent from the remaining applied references:

i. a color bar in a marginal region that is significantly closer in proximity to the edge of a sheet of paper than an opposing edge of the sheet of paper

ii. a color bar in a marginal region that is a minor sized region of a sheet of paper while also having a blank region which is a major sized region of the paper

With respect to the first feature that Schramm is being relied upon (i.e., a color bar in a marginal region that is significantly closer in proximity to the edge of a sheet of paper than an opposing edge of the sheet of paper), Schramm discloses nothing more than what is known in the prior art wherein conventional blank proofs are simultaneously printed with a color bar and the proof content, as described in paragraph [0017] on page 3, lines 19-21 of the patent application, repeated below for convenience:

Currently, proofing material is distributed as blank sheets. During one conventional proof creation process, a marking engine prints the content image portion (proof content) and color bar image data (e.g., one or more proofing color control bars or color bars) on the proof.

In this conventional process, the color bar is typically printed in a marginal region so that it is clearly visible and not obscured by the proof content. As further described in paragraph [0017] on page 3, lines 21-24 of the patent application, “[a] colorimeter or photospectrometer (spectrophotometer) may then used to measure the color bar and determine if it was in specification. Alternatively, an external reference color bar may be compared to the color bar on the proof.”

With respect to the second feature that Schramm is being relied upon (i.e., a color bar in a marginal region that is a minor sized region of a sheet of paper while also having a blank region which is a major sized region of the paper), Schramm does not disclose this feature because the major sized region of the paper in Schramm is actually not a blank region. In fact, an artisan would clearly understand that content must exist in the major sized region of Schramm for Schramm to function as intended, even though no content is explicitly shown in Schramm. In

Schramm, the content was not necessary to illustrate the inventive feature, and the illustrator merely chose not to show the content.

Column 5, lines 45-46 of Schramm discloses a printed workpiece or sheet 10 constituting a carrier for a color control strip 11. Column 20, lines 23-25 of Schramm describes “scanning of a color control strip on a sheet of printed workpiece material...” **The printing on the workpiece or sheet 10 is the content.**

Schramm’s Background of the Invention further makes clear that the workpiece or sheets have content in addition to the color control strip. See, for, example, column 1, lines 15-25 of Schramm which reads as follows (underlining added for emphasis):

The present invention relates to a method and apparatus for controlling the operation of a printing machine, and more particularly to improvements in a method and apparatus for controlling or regulating the ink feed and other parameters affecting the density of colors which are applied to various zones of sheets during each run of the press. Still more particularly, the invention relates to improvements in a method and apparatus for monitoring and evaluating the quality of color reproduction in multi-color printing in order to ascertain the need for adjustment of the color-affecting controls on the press.

Running a press and evaluating the quality of color reproduction in multi-color printing inherently requires that content be placed on the workpiece or sheet 10.

The attached Declaration of James Brigandi (Brigandi Declaration) further supports the fact that content exists on the major sized region of the workpiece or sheet 10 in Schramm, and that this region is actually not a blank region. See, especially paragraphs 7-9 of the Brigandi Declaration.

2. Chalmers

Chalmers was previously applied against the claims and subsequently withdrawn in view of Applicant’s arguments and amendments. The outstanding rejection applies a new interpretation of Chalmers against the claims. The Examiner now identifies a new blank region and a new marginal region as allegedly reading on the claims.

The new regions of Chalmers identified by the Examiner suffer from at least the following deficiencies:

i. Claims 1 and 12 require that “the marginal region [has] no content image portion.” In the outstanding Office Action, the Examiner ignored this claim feature in the recitation of how Chalmers is alleged to read on the blank region and the marginal region. Nor did the Examiner address this feature anywhere else in the rejection of claims 1 and 12. In fact, the area of Chalmers that the Examiner highlights as allegedly being the “marginal region” has multiple content images, namely, colour prints 2. In fact, these are the identical content images that are subsequently printed in the area marked by the Examiner as being the blank region when the master chart is printed with the test sheet. See column 2, lines 14-16 of Chalmers, which reads as follows (underlining added for emphasis):

These carry the same array of colour blocks 1A and picture representations 2A but the block and colour representations are offset with respect to the positioning of the corresponding blocks on the master chart of FIG. 1.

As stated in MPEP 2143.03, which reads, in part, as follows (quotations in the original, underlining added for emphasis)”

“All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

In sum, an artisan would not consider the area marked by the Examiner as allegedly being the “marginal region” (now recited as being the “border region”) as having no content image portion.

ii.. The area that the Examiner has highlighted as allegedly being a “blank region” does not meet the claim language for this region, which explicitly recites that it is a region “for subsequent printing of a content image portion” and that the blank region and the border region constitute the entire surface area of one side of the sheet of paper. At best, the blank region identified by the Examiner is only a portion of the region that subsequently receives printing of a content image portion because there are other areas of the sheet that subsequently receive printing of a content image portion, such as the areas between the color blocks, and those areas

were not included in the dotted line region labeled “blank region.” In fact, all of the areas in Fig. 2 of Chalmers that subsequently receive the content in the test sheet of Fig. 2 should be part of the “blank area” of Fig. 1 in order to properly meet the claim language. The Examiner has improperly included many of these areas as allegedly being in the “marginal region” (area outside of the dotted line representing the alleged “blank region”).

As discussed above, all words in a claim must be considered in judging the patentability of that claim against the prior art, and thus the claimed “blank region” cannot read on any blank region of a sheet, but must be a blank region “for subsequent printing of a content image portion” and that the blank region and the border region constitute the entire surface area of one side of the sheet of paper. The “blank region” identified by the Examiner fails to meet these requirements. Of course, the Examiner’s rejection will suffer from many other deficiencies if the blank region and marginal region (now “border region”) are redefined to include properly match the claim language.

iii. The area that the Examiner has highlighted as allegedly being a “marginal region” does not meet any ordinary definition of a marginal region, as that term would be understood by an artisan in the printing arts when referring to areas of a sheet. Notwithstanding this fact, to advance prosecution of the patent application, claims 1 and 12 were further amended to recite a “border region” instead of a “marginal region.” The area that the Examiner has highlighted as allegedly being a “marginal region” does not meet any ordinary definition of a border region, as that term would be understood by an artisan in the printing arts when referring to areas of a sheet, because the area clearly includes non-border areas. As stated above, one ordinary definition of “border” is “the part or edge of a surface or area that forms its outer boundary.”²

The Examiner admits that Chalmers does not expressly disclose color bars extending along a portion of an edge of the sheet of paper and that are significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper. In Chalmers, color blocks 1 extend along a center region of the sheet, and thus are not significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper.

² *Dictionary.com Unabridged*. Random House, Inc. <http://dictionary.reference.com/browse/border> (accessed: December 02, 2010).

However, the Examiner asserts that it would have been obvious to add Schramm's color control strip (which is significantly closer in proximity to the edge of the printed workpiece or sheet than an opposing edge of the printed workpiece or sheet) to Chalmers "in order to obtain an arrangement of a color bar in a margin area of a sheet." The Examiner further asserts that the motivation for doing so would be "to allow for a larger printable image footprint."

As discussed below, there is no reason to modify Chalmers in this manner, and doing so would be contrary to conventional practice in the printing arts. See, also, paragraphs 15-17 of the Brigandi Declaration.

3. Patentability of claims 1 and 12 over Chalmers in view of Schramm

a. Even if Chalmers is modified as suggested by the Examiner so as to move Chalmers' color blocks 1 to a margin area of the sheet, the modified version of Chalmers would still fail to disclose or suggest at least the following underlined features of claims:

1. An article of manufacture for use in a proofing process comprising a sheet of paper that includes:

(a) a blank region for subsequent printing of a content image portion; and

(b) a border region outside of the blank region, the border region including one or more standard color bars pre-printed thereon and having no content image portion, and each of the one or more standard color bars having a plurality of color blocks of different colors, each color block reflecting a wavelength in the electromagnetic spectrum that represents a color selected from a color space, wherein the blank region and the border region constitute the entire surface area of one side of the sheet of paper, and

wherein the one or more standard color bars extend along a portion of an edge of the sheet of paper and are significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper.

12. An article of manufacture for use in a proofing process comprising a sheet of paper that includes:

(a) a border region including one or more standard color bars pre-printed thereon and having no content image portion, and each of the one or more standard color bars having a plurality of color blocks of different colors, each color block reflecting a wavelength in the electromagnetic spectrum that represents a color selected from a color space; and

(b) a blank region outside of the border region for subsequent printing of a content image portion, wherein the border region and the blank region constitute the entire surface area of one side of the sheet of paper, and

wherein the one or more standard color bars extend along a portion of an edge of the sheet of paper and are significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper.

Accordingly, even if the combination of Chalmers in view of Schramm as contemplated by the Examiner is proper (which Applicant does not admit), the combination does not meet each and every claim feature, and thus must be withdrawn.

b. The combination of Chalmers in view of Schramm as contemplated by the Examiner is improper, and modifying Chalmers as proposed by the Examiner would be contrary to conventional practice in the printing arts.

First, the Examiner's reason for moving Chalmers' color blocks 1 to a margin area of the sheet is not valid. The Examiner's reason is "to allow for a larger printable image footprint." However, Chalmers is merely printing matching images adjacent to identical versions of the matching images, and thus Chalmers has no need for a larger printable image footprint. In fact, the printable image footprint in Chalmers will be identical if the color blocks 1 are moved to a margin area. That is, there will be more space in the center area where the color blocks 1 are moved from, and less space in the margin where the color blocks are moved to, but overall the printable image footprint will be identical. Since Chalmers has no need for a larger printable image footprint, there is no reason to maximize a printing area where a content image portion will be subsequently printed.

Furthermore, moving Chalmers' color blocks 1 to a margin area of the sheet is an improper modification of Chalmers for at least the same reasons discussed below with respect to the Examiner's rejection of claims 16, 20, 24 and 28 over Komori in view of Schramm, wherein the Examiner proposes to move Komori's color chart (bar) in Figs. 12 and 13 to an edge of the printing product. In Chalmers, the color blocks 1 are presently located in a center area. As discussed below, this is the ideal position on the sheet to print a color bar. By printing the color bar in the center areas, imperfections in the press setup, such as misregistration of printing plates and/or the printing press, are more easily detected.

In sum, the only reason to move Chalmers' color blocks 1 to a margin area of the sheet is to recreate Applicant's invention, and this would constitute improper hindsight recreation of Applicant's claimed invention. Accordingly, the combination of Chalmers in view of Schramm as contemplated by the Examiner is improper and must be withdrawn.

4. Komori

Komori discloses a process that can be used when a printing press A becomes unavailable after color proofing is performed using the printing press A, and an alternative printing press B needs be used for the print job without making a new color proof using the printing press B and asking the customer to re-approve the color proof. Komori's process uses the original color proof made using the printing press A, and performs various adjustments to the printing press B based on colorimeter values obtained from the color proof made using the printing press A.

Figs. 2, 3, 8, 12 and 13 of Komori shows printing products printed by a printing press. The printing products 10 shown in Figs. 2, 3 and 8 of Komori are similar to conventional proofs used in the printing industry wherein color charts (bars) are printed simultaneously with the proof content, and the color charts (bars) are printed in a marginal region (referred to as a "margin portion" in Komori). In Figs. 2, 3 and 8 of Komori, the color charts are labeled as 3b, 4b and 10b, respectively. The proof content is labeled as 3a, 4a and 10a, respectively. Although Komori does not show the actual proof content, the following text portions of Komori clearly describe that proof content is printed in regions 3a, 4a and 10a (underlining added for emphasis):

a pattern is printed in a region 3a at the center
(lines 2-3 of paragraph [0030])

a pattern is output to a region 4a at the central portion
(lines 1-2 of paragraph [0031])

(Region 10a in Fig. 8 is not explicitly described in Komori, but it is clearly identical in content to regions 3a and 4a of similar Figs. 2 and 3.)

Figs. 2, 3 and 8 of Komori thus disclose nothing more than the prior art with respect to color charts (bars) being printed on proofing paper simultaneously with the proof content.

Figs. 12 and 13 of Komori disclose an alternative embodiment wherein no patterns (i.e., proofing content) are printed on the printing products 3, 4, either simultaneously with the color chart (bar) 3b, 4b, or subsequently to the printing of the color chart (bar) 3b, 4b. Only the color chart (bar) 3b, 4b is printed thereon. However, the color chart (bar) 3b, 4c is printed in approximately the center of the printing products 3, 4, instead of being printed in a margin portion as disclosed with respect to Figs. 2, 3 and 8 of Komori. Paragraphs [0083] through [0085] of Komori describe that colorimeter values are obtained from the color charts (which were printed on printing press A) and are used to set up printing press B.

In sum, Komori discloses two embodiments for printing of a color chart (bar) on a printing proof, as follows:

1. Print the color chart (bar) on a margin portion, simultaneously with the patterns (proofing content). (Figs. 2, 3 and 8)
2. Print the color chart (bar) in approximately the center, without any patterns (proofing content). (Figs. 12 and 13)

In the outstanding Office Action, the Examiner relies upon Fig. 13 of Komori for showing the claimed blank region and marginal region. The Examiner admits that Fig. 13 of Komori does not expressly disclose color bars extending along a portion of an edge of the sheet of paper and that are significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper. As noted above, the color chart (bar) 3b, 4c in Komori is printed in approximately the center of the printing products 3, 4, and thus is not significantly closer in proximity to the edge of the sheet of paper than an opposing edge of the sheet of paper. However, the Examiner asserts that it would have been obvious to add Schramm's color control strip (which is significantly closer in proximity to the edge of the printed workpiece or sheet than an opposing edge of the printed workpiece or sheet) to Komori "in order to obtain an arrangement of a color bar in a margin area of a sheet." The Examiner further asserts that the motivation for doing so would be "to avoid placing the color bar in the printable image (or blank) region of a sheet to allow for a larger printable image footprint." Based on this reasoning, Applicant presumes that the Examiner's reconstruction of Komori is to move Komori's color chart (bar) 3b, 4c to a margin area of the sheet, since if the existing color chart (bar) 3b, 4c remains in its current location, then Komori would not allow for "a larger printable image footprint."

In the “Amendment Accompanying RCE” filed August 16, 2010 (hereafter, “the previous Response”), Applicant provided the following remarks to preemptively address an obviousness rejection over Komori based on the same grounds that is now believed to be applied against the claims (underlining in the original):

Nor is there any reason to move the color chart (bar) in Figs. 12 and 13 of Komori to an edge of the printing product since no patterns (proofing content) are to be printed on the printing product shown in Figs. 12 and 13. Color bars are typically printed near an edge of printing proof, and preferably in the gripper³ (and less often in the tail⁴) so as to maximize the amount of room that is available for the proofing content, as shown in Figs. 2, 3 and 8 of Komori which illustrate conventional proof layouts of color bars and their simultaneously printed proof content. No such need exists with respect to the embodiments in Figs. 12 and 13 because no patterns (i.e., proofing content) are printed on the printing products 3, 4, either simultaneously with the color chart (bar) 3b, 4b, or subsequently to the printing of the color chart (bar) 3b, 4b.

It is well-known in the printing arts that when a color bar is used for color management of a printing press, which is the explicitly stated purpose of Komori, the ideal position on the paper to print the color bar is in a center area of the paper, exactly as shown in Figs. 12 and 13 of Komori. By printing the color bar in the center areas, imperfections in the press setup, such as misregistration of printing plates and/or the printing press, are more easily detected. However, this is usually not done because it typically would interfere with the simultaneous printing of the proof content. Since Komori does not intend to print any proof content in the embodiment shown in Figs. 12 and 13, the color bar can be printed in the more optimal center area. This is why Figs. 12 and 13 shows the color bar in the center area of the paper and not near an edge of the printing proof, as shown in Figs. 2, 3 and 8 of Komori which illustrate conventional proof layouts of color bars and simultaneously printed proof content.

Accordingly, it would be contrary to conventional practice in the printing arts to move the color bar in Figs. 12 and 13 of Komori to an edge of the printing product since it would result in a less ideal use of the color bar for color management of the printing press. In the embodiments shown in Figs. 2, 3 and 8, the tradeoff of the less-than-ideal location of the

³ “gripper” is the area at the edge of a sheet of paper that the printer or copier will use to pull the paper through the machine. This area will not be imaged.

⁴ “tail” is the area at the opposite edge of the sheet of paper with respect to the gripper.

color bar is made so as to maximize the area for printing of the proof content.

Komori thus clearly illustrates that the claimed invention is contrary to conventional wisdom, since the claimed article of manufacture is printed without any proof content, yet the color bar(s) are printed in a marginal region and extends along a portion of an edge of the sheet of paper. This is in clear contrast to the conventional wisdom that color bars are ideally printed in a center area of the paper when no content portion (proof content) appears. Thus, there is no reason why one of ordinary skill would move the color bar in Figs. 12 and 13 of Komori to the edge of the sheet of paper, as recited in the current set of claims.

While the claimed invention also provides color bar(s) in a less-than-ideal location similar to Figs. 2, 3 and 8 of Komori, it is an acceptable tradeoff in providing a sheet of paper that can be subsequently used for printing proof content along with a second color bar, as described in the specification, and claimed in the method claims of corresponding U.S. Patent No. 6,721,068 (Weiss).

These remarks are further supported by the Brigandi Declaration. See, especially paragraphs 10-14 of the Brigandi Declaration.

These remarks are incorporated herein since they are equally applicable to the outstanding rejection wherein the Examiner proposes to modify Komori in exactly the same manner that Applicant argued is contrary to conventional wisdom.

4. Patentability of independent claims 16, 20, 24 and 28 over Komori in view of Schramm

i. Komori cannot be properly modified as proposed in the outstanding rejection

As discussed above, it is improper to move Komori's color chart (bar) 3b, 4c to a margin area of the sheet.

ii. The modification is based on an incorrect understanding of Schramm

The modification of Komori is further improper because it is based on the Examiner's incorrect premise that Schramm has no content in the region outside of the marginal region. Since Schramm does, in fact, have content in the region outside of the marginal region,

Schramm's printed workpiece or sheet 10 is no different than Figs. 2, 3 and 8 of Komori wherein content exists in the region that is asserted to be equivalent to the claimed blank region.

5. Patentability of dependent claims

The dependent claims are believed to be patentable over the applied references for at least the reason that they are dependent upon allowable base claims and because they recite additional patentable elements and steps.

Conclusion

Insofar as the Examiner's rejections were fully addressed, the instant application is in condition for allowance. Withdrawal of the outstanding rejections and issuance of a Notice of Allowability of all pending claims is therefore earnestly solicited.

Respectfully submitted,

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January 14, 2011
(Date)


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Enclosure: Declaration of James Brigandi
Under 37 C.F.R. § 1.132